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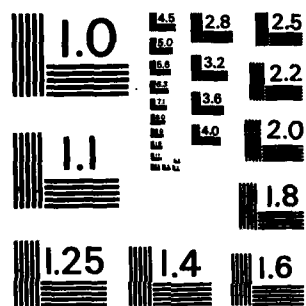
DEPARTMENT OF THE ARMY JUSTIFICATION OF ESTIMATES FOR
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DEPARTMENT OF THE ARMY
PROCUREMENT OF AMMUNITION, ARMY

JUSTIFICATION OF ESTIMATES FOR FISCAL YEARS 1984, 1985

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4-1 January 1983

PROCUREMENT OF AMMUNITION, ARMY

Section 1

Budget Appendix Extract

Language

Program and Financing Schedule

Object Classification Schedule

4-1 January 1983

Procurement of Ammunition, Army

APPROPRIATION LANGUAGE

For construction, procurement, production, upgrade, and modification of ammunition, and accessories therefor; specialized equipment and training devices; expansion of public and private plants, including ammunition facilities authorized in military construction authorization Acts or authorized by section 2673, title 10, United States Code, and the land necessary therefor, without regard to section 4774, title 10, United States Code, for the foregoing purposes, and such lands and interests therein, may be acquired, and construction prosecuted thereon prior to approval of title as required by section 355, Revised Statutes, as amended; and procurement and installation of equipment, appliances, and machine tools in public and private plants; reserve plant and Government and contractor-owned equipment layaway; and other expenses necessary for the foregoing purposes; (\$2,122,394,000) \$2,334,189,000 to remain available for obligation until September 30, (1985) 1986. (1) (2) (3)

(10 U.S.C. 2353, 2361, 3012, 4531, 4532; Department of Defense Appropriation Act, 1983; additional authorizing legislation to be proposed.)

EXPLANATION OF LANGUAGE CHANGES

- (1) To include the procurement of ammunition in support of the equipment upgrade program.
- (2) To change the amount of the appropriation requested for FY 1984.
- (3) To change the obligation expiration date for the FY 1984 program.

4-2 January 1983

Army

Procurement of Ammunition, Army

31 Jan 83

Program and Financing (in thousands of dollars)

Summary

Identification code	21-2034-0-1-051	Budget plan (amounts for procurement actions programmed)			Obligations		
		1982 actual	1983 est.	1984 est.	1982 actual	1983 est.	1984 est.
Program by activities:							
Direct:							
1. Ammunition		2,020,895	1,717,500	2,055,850	2,055,927	1,595,305	2,024,274
2. Ammunition production base support		301,720	404,484	277,399	311,540	365,972	303,052
Total direct		2,322,615	2,121,984	2,334,199	2,367,467	2,065,278	2,327,326
Reimbursable program		53,595	119,500	171,100	155,515	177,222	152,395
10.0001 Total		2,405,811	2,241,484	2,505,299	2,523,083	2,242,500	2,479,724
Financing:							
Offsetting collections from:							
11.0001 Federal funds		-45,234	-114,700	-159,405	-35,735	-114,700	-159,405
12.0001 Trust funds		-33,773	-10,400	-11,700	-24,551	-10,400	-11,700
14.0001 Non-Federal sources		-2,154			-2,077		
17.0001 Recoveries of prior year obligations(-)					-52,554		
Unobligated balance available, start of year:							
21.4001 For completion of prior year budget plans					-251,531	-255,415	-255,412
21.4002 Available to finance new budget plans			-10,000			-10,000	
21.4003 Reprogramming from or to prior year budget plan		-35,351					
22.4001 Unobligated balance transferred to other accounts			10,000			10,000	
Unobligated balance available, end of year:							
24.4001 For completion of prior year budget plans					255,415	255,412	250,977
24.4002 Available to finance subsequent year budget plans		10,000			10,000		
25.0001 Unobligated balance lapsing		35,351			35,351		
39.0001 Budget authority		2,332,500	2,115,984	2,334,199	2,332,500	2,115,984	2,334,199
Budget authority:							
40.0001 Appropriation		2,331,900	2,122,584	2,334,199	2,331,900	2,122,584	2,334,199
40.0002 Reduction pursuant to P.L. 97-377			-7,000			-7,000	
41.0001 Transferred to other accounts(-)		-49,400			-49,400		
42.0001 Transferred from other accounts			1,000			1,000	
43.0001 Appropriation (adjusted)		2,332,500	2,115,984	2,334,199	2,332,500	2,115,984	2,334,199
Relation of obligations to outlays:							
71.0001 Obligations incurred, net					2,474,157	2,117,400	2,305,524
72.4001 Obligated balance, start of year					1,515,455	2,404,415	2,557,515
74.4001 Obligated balance, end of year					-2,404,415	-2,557,515	-2,775,040
77.0001 Adjustments in expired accounts					23,450		
78.0001 Adjustments in unexpired accounts					-52,554		
80.0001 Outlays					1,546,525	1,534,300	2,117,100

4-3 January 1983

Army

Procurement of Ammunition, Army

31 Jan 83

Object Classification (in thousands of dollars)

Summary

Identification code	21-2034-0-1-061	1982 actual	1983 est.	1984 est.
Direct obligations:				
Other services:				
125.004	Other	491,070	489,630	524,342
125.001	Supplies and materials	1,889,897	1,575,448	1,802,584
125.001	Total direct obligations	2,380,767	2,065,078	2,327,326
Reimbursable obligations:				
Other services:				
225.004	Other	25,396	19,957	33,137
225.001	Supplies and materials	127,420	157,265	119,261
225.001	Total reimbursable obligations	152,816	177,222	152,398
999.901	Total obligations	2,533,583	2,242,300	2,479,724

4-4 January 1983

Army

Procurement of Ammunition, Army

31 Jan 83

Program and Financing (in thousands of dollars)

1980 Fiscal year program

Identification code	21-2034-0-1-051	Budget plan (amounts for procurement actions programmed)			Obligations		
		1982 actual	1983 est.	1984 est.	1982 actual	1983 est.	1984 est.
Program by activities:							
Direct:							
	1. Ammunition				38,666		
	2. Ammunition production base support				8,987		
	Total direct				47,653		
	Reimbursable program				19,944		
10.0001	Total				67,597		
Financing:							
Offsetting collections from:							
11.0001	Adjustment to prior year federal fund order				5,532		
13.0001	Adjustment to prior year trust fund orders				2,227		
14.0001	Adjustment to non-federal sources				-23		
17.0001	Recoveries of prior year obligations(-)				-24,731		
	Unobligated balance available, start of year:						
21.4001	For completion of prior year budget plans				-86,963		
21.4002	Reprogramming from or to prior year budget plan	-36,361					
25.0001	Unobligated balance lapsing	36,361			36,361		
40.0001	Budget authority						

4-5 January 1983

Army

Procurement of Ammunition, Army

31 Jan 83

Program and Financing (in thousands of dollars)

1981 Fiscal year program

Identification code	21-2034-0-1-051	Budget plan (amounts for procurement actions programmed)			Obligations		
		1982 actual	1983 est.	1984 est.	1982 actual	1983 est.	1984 est.

Program by activities:							
Direct:							
1. Ammunition							
2. Ammunition production base support							
Total direct							
Reimbursable program							
10.0001	Total				107,747	56,379	
					10,804	7,882	
					118,551	64,061	
					78,088	68,112	
					196,620	132,173	

Financing:							
Offsetting collections from:							
11.0001	Adjustment to prior year federal fund orders				4,884		
13.0001	Adjustment to prior year trust fund orders				8,885		
14.0001	Adjustment to non-federal sources				50		
17.0001	Recoveries of prior year obligations(-)				-38,203		
21.4001	Unobligated balance available, start of year				-304,566	-132,173	
24.4001	Unobligated balance available, end of year				132,173		
40.0001	Budget authority						

4-6 January 1983

Army

Procurement of Ammunition, Army

31 Jan 83

Program and Financing (in thousands of dollars)

1982 Fiscal year program

Identification code	21-2034-0-1-061	Budget plan (amounts for procurement actions programmed)			Obligations			
		1982 actual	1983 est.	1984 est.	1982 actual	1983 est.	1984 est.	
Program by activities:								
Direct:								
1.	Ammunition	2,020,895			1,922,514	36,505	61,576	
2.	Ammunition production base support	301,720			292,049	9	8,109	
	Total direct	2,322,615			2,214,563	45	69,679	
	Reimbursable program	83,896			57,603	10	5,513	
10.0001	Total	2,406,511			2,272,166	55	75,192	
Financing:								
Offsetting collections from:								
11.0001	Federal funds	-46,234			-46,234			
13.0001	Trust funds	-35,773			-35,773			
14.0001	Non-federal sources	-2,104			-2,104			
21.4001	Unobligated balance available, start of year:					-13	-75,192	
21.4002	For completion of prior year budget plans					-10,000		
21.4003	Available to finance new budget plans		-10,000					
23.4001	Unobligated balance transferred to other accounts		10,000			10,000		
24.4001	Unobligated balance available, end of year:							
24.4002	For completion of prior year budget plans				134,245	75,192		
24.4003	Available to finance subsequent year budget plans		10,000		10,000			
30.0001	Budget authority	2,332,500			2,332,500			
Budget authority:								
40.0001	Appropriation	2,361,900			2,361,900			
41.0001	Transferred to other accounts(-)	-49,400			-49,400			
49.0001	Appropriation (adjusted)	2,332,500			2,332,500			

4-7 January 1983

Army

Procurement of Ammunition, Army

31 Jan 83

Program and Financing (in thousands of dollars)

1983 Fiscal year program

Identification code	21-2034-0-1-051	Budget plan (amounts for procurement actions programmed)			Obligations			
		1982 actual	1983 est.	1984 est.	1982 actual	1983 est.	1984 est.	
Program by activities:								
Direct:								
1.	Ammunition	1,717,500			1,603,122	69,004		
2.	Ammunition production base support	404,484			359,722	22,674		
	Total direct	2,121,984			1,962,844	91,678		
	Reimbursable program	118,500			88,430	27,115		
10.0001	Total	2,241,484			2,051,274	118,793		
Financing:								
Offsetting collections from:								
11.0001	Federal funds	-114,700			-114,700			
13.0001	Trust funds	-10,400			-10,400			
21.4001	Unobligated balance available, start of year					-190,220		
24.4001	Unobligated balance available, end of year					190,220	71,427	
39.0001	Budget authority	2,116,394			2,116,394			
Budget authority:								
40.0001	Appropriation	2,122,394			2,122,394			
40.0002	Reduction pursuant to P.L. 97-377	-7,000			-7,000			
42.0001	Transferred from other accounts	1,000			1,000			
43.0001	Appropriation (adjusted)	2,116,394			2,116,394			

4-8 January 1983

Army	Procurement of Ammunition, Army			31 Jan 83		
	Program and Financing (in thousands of dollars)			1984 Fiscal year program		
Identification code	21-2034-0-1-081	Budget plan (amounts for procurement actions programmed)			Obligations	
		1982 actual	1983 est.	1984 est.	1982 actual	1983 est.
						1984 est.
Program by activities:						
Direct:						
	1. Ammunition			2,056,850		1,893,694
	2. Ammunition production base support			277,339		272,276
	Total direct			2,334,189		2,165,969
	Reimbursable program			171,100		119,770
10.0001	Total			2,505,289		2,285,739
Financing:						
Offsetting collections from:						
11.0001	Federal funds			-159,400		-159,400
13.0001	Trust funds			-11,700		-11,700
24.4001	Unobligated balance available, end of year					219,560
40.0001	Budget authority			2,334,189		2,334,189

4-9 January 1983

PROCUREMENT OF AMMUNITION, ARMY

Section 2

Budget Activity Justification

Activity 1 - Ammunition

Activity 2 - Ammunition Production Base Support

4-10 January 1983

Department of the Army Annual Budget Estimate Justification	Appropriation		FY 1984
	PROCUREMENT OF AMMUNITION, ARMY		Budget
Budget Program	(Thousands of Dollars)		
Activity 1 - Ammunition	Actual FY 1982	Estimate FY 1983	Estimate FY 1984
Direct Budget Plan	\$2,020,895	\$1,717,500	\$2,056,850

PURPOSE AND SCOPE

AMMUNITION. The FY 1984 request provides for worldwide training consumption, improvements in near term readiness and combat sustainability, and the acquisition of war reserve stocks for use during wartime. Family of munitions included in the request are artillery, mortar, tank, small arms ammunition, rockets, fuzes, demolitions, grenades, pyrotechnic signals, and other ammunition items. The major portion of the funds being requested are identified to newly developed tank rounds, artillery munitions, and small arms ammunition.

JUSTIFICATION OF FUNDS REQUESTED

The fiscal year 1984 program provides for worldwide training consumption and losses to inventory through the FY 1984 funded delivery period; increases US Army readiness in support of the FY 1987 authorized acquisition objective and maintains an active ammunition production base in FY 1984 for modernization and training type munitions. The FY 1984 program includes over 50 different types of ammunition including \$225.7 million for tank ammunition, \$95.8 million for fuzes, \$830.2 million for artillery ammunition, \$117.9 million for propelling charges, \$407.6 million for small arms, \$124.9 million for mortar ammunition, \$112.0 million for nuclear materiel and \$142.8 million for other ammunition, spares and components for tests, renovation and prove-out. A category breakout of the FY 1984 program is as follows:

4-11 January 1983

ITEM BREAKOUT, FY 1984

Tank Ammunition (\$225.7 million)

<u>TYPE</u>	<u>\$ (Millions)</u>	<u>REMARKS</u>
105mm Tank Ammunition	\$157.9	The budget request includes the Armor-Piercing Fin-Stabilized Discarding Sabot-Tracer (APFSDS-T) round to support war reserve objectives, and the Discarding Sabot-Target Practice (DS-TP) and Target Practice-Tracer (TP-T) rounds for training requirements. The FY 1984 request is for 168,000 105mm TP-T cartridges in the amount of \$34.1 million, 173,000 105mm DS-TP in the amount of \$38.5 million and 96,000 105mm APFSDS-T in the amount of \$85.3 million.
120mm Tank Ammunition	64.8	The APFSDS-T, TP-T, and TPDS-T begin production in FY 1984. The APFSDS-T buy is to support war reserve objectives. The TP-T and TPDS-T are for training requirements. The FY 1984 request is for 9,000 120mm APFSDS-T in the amount of \$23.0 million, 13,000 120mm TP-T in the amount of \$17.2 million and 13,000 120mm TPDS-T in the amount of \$24.6 million.
165mm Target Practice (TP)	3.0	This item is required to support training with the Combat Engineer Vehicle. The FY 1984 request is for 10,000 165mm TP rounds in the amount of \$3.0 million.
<u>Fuzes (\$95.8 million)</u>		
Fuze, Proximity	38.4	All fuzes are required for both war reserve and training. Fuzes are procured to balance with artillery and mortar projectiles. The FY 1984 request is for 513,000 proximity, 240,000 point detonating and 658,000 mechanical time fuzes.
Fuze, Point Detonating	5.1	
Fuze, Mechanical time	52.3	

4-12 January 1983

<u>TYPE</u>	<u>\$ (Millions)</u>	<u>REMARKS</u>
<u>Artillery Ammunition (\$830.2 million)</u>		
155mm HE, ICM (DP)	233.0	This High Explosive (HE), Improved Conventional Munitions (ICM) projectile is a dual purpose (DP) anti-armor/anti-personnel round. Funding is required to meet war reserve sustainability objectives. The FY 1984 request is for 459,000 projectiles.
155mm, HE, RAP	45.0	This projectile is a High Explosive, Rocket Assisted Projectile (RAP), providing increased range for the 155mm Howitzer. The budget request is needed to meet war reserve requirements. The FY 1984 budget request is for 76,000 projectiles.
155mm ADAM/RAAMS	189.7	The Area Denial Artillery Munition (ADAM) and Remote Anti-Armor Mine Systems (RAAMS) projectiles are artillery delivered anti-personnel and anti-armor mines. The projectiles eject sub-munition mines at a designated time. Funding is required to support war reserve objectives. The FY 1984 request is for 4,000 155mm HE ADAM M692 projectiles in the amount of \$18.1 million, 10,000 155 HE, ADAM M73 projectiles in the amount of \$48.3 million, 19,000 155mm HE, RAAMS M718 projectiles in the amount of \$38.4 million and 32,000 155mm HE, RAAMS M714 projectiles in the amount of \$84.9 million.
155mm Copperhead	75.0	The FY 1984 budget request includes a Copperhead procurement in support of war reserve requirements and is for 1,415 155mm Copperhead projectiles.

4-13 January 1983

<u>TYPE</u>	<u>\$ (Millions)</u>	<u>REMARKS</u>
155mm Chemical Munitions	18.1	The budget request includes funding for chemical munitions.
155mm Smoke	22.4	This round provides a smoke screening capability with the 155 Howitzer. The procurement is required to support war reserve objectives and training. The FY 1984 request is for 33,000 155mm smoke screening projectiles.
8-Inch, HE, ICM (DP)	\$201.0	This High Explosive (HE), Improved Conventional Munitions (ICM) round is a dual purpose (DP) anti-armor/anti-personnel projectile. This item is required to support war reserve sustainability objectives. The FY 1984 request for 192,000 8-inch, HE, ICM(DP) projectiles.
8-Inch, HE, RAP	39.4	This item is a High Explosive, Rocket Assisted Projectile providing greater range for the 8-inch Howitzer. The budget request is to support war reserve requirements. The FY 1984 request is for 23,000 8-inch, HE, RAP projectiles.
75mm and 105mm Blank	5.6	These blank rounds are required to support saluting requirements for ceremonial purposes. The FY 1984 request is for 124,000 75mm blank cartridges in the amount of \$3.8 million and 57,000 105mm blank cartridges in the amount of \$1.8 million.
Primer, Percussion	1.0	Primers are required as a component of complete artillery rounds. Primers are procured in balance with the number of projectiles procured. The FY 1984 request is for 259,000 percussion primers.

4-14 January 1983

<u>TYPE</u>	<u>\$ (Millions)</u>	<u>REMARKS</u>
<u>Propelling Charges (\$117.9 Million)</u>		
155mm Propelling Charges	83.4	155mm propelling charges are procured in balance with the number of 155mm projectiles procured in support of war reserve and training requirements. The FY 1984 request is for 703,000 155mm propelling charges.
8-Inch Propelling Charges	34.5	8-inch propelling charges are procured in balance with the number of 8-inch projectiles procured. The FY 1984 request is for 131,000 8-inch propelling charges. .
<u>Small Arms Ammunition (\$407.6 Million)</u>		
5.56mm, All Types	74.7	The budget request includes funding for 5.56mm Ball, Tracer, and Blank ammunition for the M-16 rifle and Squad Automatic Weapon in support of both war reserve and training requirements. The FY 1984 request is for 434,321,000 rounds of various types of 5.56mm cartridges.
7.62mm, All Types	41.9	The budget request includes Ball, Tracer and Blank ammunition for war reserves and training requirements. The FY 1984 request is for 131,618,000 rounds of various types of 7.62mm cartridges.
Cal .22, All Types	.3	The requested procurement supports training requirements. The FY 1984 request is for 3,041,000 caliber .22 ball match cartridges.
Cal .45, All Types	1.9*	This request supports war reserve and training requirements.

* Includes \$.2 million from items under \$900,000

4-15 January 1983

<u>TYPE</u>	<u>\$ (Millions)</u>	<u>REMARKS</u>
9mm Ball	1.2	Procurement for this item begins in FY 1984. It supports both war reserve and training with the 9mm hand gun.
Limited Range Plastic Ammunition	2.3	This request supports training requirements. This item is required where range facilities will not accommodate standard munitions. Plastic ammunition includes 5.56mm and Cal .50 rounds.
Cal .50, All Types	47.0	This request supports both war reserve and training requirements.
20mm, All Types	16.4	This request supports training with the Vulcan and COBRA helicopter 20mm weapon systems. The FY 1984 request is for 2,788,000 20mm TP-T Vulcan cartridges in the amount of \$11.4 million and 1,421,000 20mm TP-T M220 cartridges in the amount of \$5.0 million.
30mm, All Types	\$ 18.9	The budget request includes the High Explosive (HE) Dual Purpose (DP) and Target Practice (TP) rounds in support of war reserve and training requirements. The FY 1984 request is for 456,000 30mm HE-DP cartridges in the amount of \$13.7 million and 360,000 30mm TP cartridges in the amount of \$5.2 million.
25mm, All Types	91.9	The request includes the Target Practice, High Explosive Incendiary (HEI), Armor Piercing Discarding Sabot (APDS) and Dummy rounds in support of war reserve and training requirements. The FY 1984 request is for 1,599,000 25mm TP-T cartridges in the amount of \$42.2 million, 542,000 25mm HEI-T cartridges in the amount of \$21.1 million, 677,000 25mm APDS-T cartridges in the amount of \$25.3 million and 147,000 25mm dummy cartridges in the amount of \$3.3 million.

4-16 January 1983

<u>TYPE</u>	<u>\$ (Millions)</u>	<u>REMARKS</u>
40mm, All Types	111.1	The budget request is primarily for DIVAD ammunition (\$109.3 million) including High Explosive Incendiary, Target Practice, Dummy, and High Explosive with Proximity Fuze rounds. The remainder is for the 40mm practice round used with small arms. The FY 1984 request is for 201,000 40mm HEIT cartridges in the amount of \$37.5 million, 174,000 40mm TP-T cartridges in the amount of \$17.9 million, 171,000 40mm HE with proximity fuze cartridges in the amount of \$52.5 million, 10,000 40mm dummy rounds in the amount of \$1.4 million and 612,000 40mm low velocity cartridges in the amount of \$1.8 million.
<u>Mortar Ammunition (\$124.9 Million)</u>		
60mm, All Types	20.2	The budget request is for the High Explosive round with multi-option fuze in support of both war reserves and training. The FY 1984 request is for 148,000 cartridges.
81mm, Illuminating	22.4	The illuminating round is required to support the standard 81mm mortar war reserve and training requirements. The FY 1984 request is for 143,000 cartridges.
81mm, Improved, HE	5.1	Procurement of this cartridge begins in FY 1984. This buy supports training and war reserve objectives. The FY 1984 request is for 19,000 cartridges.
4.2-Inch, All Types	77.2	The budget request includes 4.2-inch High Explosive and Illuminating rounds to support training and war reserve requirements. The FY 1984 request is for 382,000 4.2-inch HE cartridges in the amount of \$44.9 million and 141,000 4.2-inch illuminating cartridges in the amount of \$32.3 million.

4-17 January 1983

<u>TYPE</u>	<u>\$ (Millions)</u>	<u>REMARKS</u>
<u>Nuclear Materiel (\$112.0 Million)</u>		
Nuclear Materiel	112.0	The budget request includes funding for projectiles and support materiel.
<u>Other Ammunition (\$142.8 Million)</u>		
Hand Grenades	16.5	The request includes smoke grenades and the High Explosive anti-armor grenade. The FY 1984 request is for 2,924,000 hand grenades.
Signals	25.1*	The budget request includes colored smoke signals and smoke pots for both war reserves and training.
Simulators	26.0*	Several types of simulators are included in the request in support of training.
Rockets	7.5	Funding for the 66mm Incendiary round is included in support of war reserve and training.
Demolition Munitions	18.6*	The request includes demolition charges, cratering kits, firing devices, igniters, and riot control items.
Ammunition Components/Support	38.6	The budget request includes funding for components for special tests, prove-out, and renovation of field stock, and malfunction investigations.
Stockpiling of Explosives and Propellants	7.9	Funding is requested to procure Comp A-5 to support load, assembly and pack for ammunition end items.
Other	2.6	Funding for marksmanship training, spares and repair parts, and other small programs are included in the budget request.

* Includes items from the under \$900,000 category; \$.5 million demolition munitions; \$.3 million signals; \$.3 million simulators.

4-18 January 1983

WAR RESERVE AMMUNITION, TRAINING AMMUNITION AND NON-HARDWARE PROGRAMS, FY 1984
(\$ Millions)

War Reserve Ammunition:	\$1,471.7
Training Ammunition:	543.9
Non-Hardware Programs:	<u>41.3</u>
	\$2,056.9

In order to support worldwide training consumption, the following ammunition is being procured to increase U.S. Army readiness.

<u>TRAINING ITEMS</u>	<u>QUANTITY</u>	<u>DOLLARS (MILLIONS)</u>
Cartridge, 5.56mm Ball	227,940,000	39.0
Cartridge, 5.56mm Blank	88,372,000	9.7
Cartridge, 5.56mm Plastic	440,000	.4
Cartridge, Caliber .22 Ball Match	3,041,000	.3
Cartridge, 7.62mm Blank	30,848,000	8.7
Cartridge, 7.62mm, Linked	71,365,000	23.3
Cartridge, 7.62mm, Match	1,471,000	.7
Cartridge, 5.56mm Ball/Tracer	19,568,000	7.5
Cartridge, 9mm Ball	312,000	.1
Cartridge, Caliber .45 Ball	7,945,000	1.7
Cartridge, Caliber .45 Wadcutter	1,295,000	.2
Cartridge, Caliber .50 APIT	1,710,000	3.7
Cartridge, Caliber .50 Plastic	957,000	1.9
Cartridge, Caliber .50 Ball, Linked	463,000	.6
Cartridge, Caliber .50 Ball/Tracer	23,931,000	32.8
Cartridge, Caliber .50 Blank, M2	6,423,000	5.8
Cartridge, Caliber .50 Blank, M85	1,787,000	2.8
Cartridge, Caliber .50 Tracer	639,000	1.3
Cartridge, 25mm HEIT	15,000	.6

4-19 January 1983

<u>TRAINING</u>	<u>QUANTITY</u>	<u>DOLLARS (MILLIONS)</u>
Cartridge, 25mm, APDS-T	500,000	18.7
Cartridge, 25mm, TP-T	1,599,000	42.2
Cartridge, 25mm, Dummy	147,000	3.3
Cartridge, 20mm TP-T, M220	1,421,000	5.0
Cartridge, 20mm, TP-T, Vulcan	2,778,000	11.4
Cartridge, 30mm, HE-DP	26,000	.8
Cartridge, 30mm, TP	360,000	5.2
Projectile, 64mm Riot Control, XM742	34,000	1.1
Projectile, 64mm Riot Control	90,000	1.3
Cartridge, 40mm Practice	612,000	1.8
Cartridge, 40mm HEIT, DIVAD	19,000	3.5
Cartridge, 40mm TP-T, DIVAD	174,000	17.9
Cartridge, 40mm Dummy, DIVAD	10,000	1.4
Cartridge, 40mm HE, DIVAD	21,000	6.4
Cartridge, 75mm Blank	124,000	3.8
Cartridge, 105mm Blank	57,000	1.8
Cartridge, 81mm Illuminating	97,000	15.2
Cartridge, 81mm (Improved) HE	19,000	5.1
Cartridge, 105mm DS-TP	173,000	38.5
Cartridge, 105mm TP-T	168,000	34.1
Cartridge, 4.2-inch HE	100,000	11.8
Cartridge, 4.2-inch Illuminating	100,000	22.9
Charge, Propelling 155mm, M119	25,000	3.0
Cartridge, 165mm TP	10,000	3.0
Fuse, Hand Grenade, Practice	2,547,000	2.8
Grenade, Smoke, Screening	32,000	2.7
Grenade, Hand, Smoke, HC	135,000	1.8
Grenade, Hand, Smoke, Green	85,000	1.6
Grenade, Hand, Smoke, Yellow	68,000	1.2
Rocket 66mm Incendiary	9,550	5.0
Smoke Pot, HC, 30 Pound	37,000	7.2
Smoke Pot, Floating	14,000	2.8
Signal Kit, Foilage Penetrating	2,000	.1
Signal, Illuminating, Red	69,000	2.4
Signal, Illuminating, White	45,000	1.5
Signal, Illuminating, Red Star	24,000	.8

4-20 January 1983

<u>TRAINING</u>	<u>QUANTITY</u>	<u>DOLLARS (MILLIONS)</u>
Signal, Illuminating, White Star	172,000	5.7
Signal, Illuminating, Green Star	98,000	3.3
Signal, Smoke, Green	6,000	.2
Signal, Illuminating, Green	29,000	1.2
Simulator, Projectile, Air Burst	86,000	1.7
Flare, Surface, Trip	5,000	.1
Simulator, Projectile, Ground Burst	884,000	6.9
Simulator, Booby Trap, Illum	46,000	.1
Simulator, Booby Trap, Whistling	80,000	.2
Simulator, Atomic	427	.6
Charge, demolition 1/4 pound	325,000	.9
Charge, Demolition, one pound	98,000	.5
Charge, Demolition, 40 pound	12,000	1.8
Cap, Blasting, Electric	67,000	.2
Charge, Demolition, Shaped M2	11,000	2.1
Charge, Demolition, Shaped, 40 pound	10,000	3.1
Cord, Detonating	2,305,000	.3
Demolition Kit, Cratering	208	.7
Firing Device, Multi-purpose	206,000	1.5
Fuse, Blasting, Time	915,000	.1
Cutter, powder actuated	7,000	.2
Simulator, Flash	796,000	4.5
Fuse, Mechanical Time	18,000	1.4
Fuse, Proximity	32,000	2.4
Primer, Percussion	259,000	1.0
Cartridge, 60mm HE	23,000	3.1
Projectile, 155mm, RAAMS	1,000	2.0
Projectile, 155mm, Copperhead	150	8.0
Projectile, 155mm, Smoke WP	9,000	6.1
Simulator, Antitank, M22	2,110,000	12.0
Cartridge, 120mm TP-T	13,000	17.2
Cartridge, 120mm TPDS-T	13,000	24.6
TOTAL		\$543.9 Million

4-21 January 1983

Department of the Army Annual Budget Estimate Justification	Appropriation PROCUREMENT OF AMMUNITION, ARMY	FY 1984 Budget
Budget Program	(Thousands of Dollars)	Estimate
Activity 1 - Ammunition		FY 1985
Direct Budget Plan		\$2,840,600

PURPOSE AND SCOPE

AMMUNITION. The FY 1985 program continues to provide for worldwide training consumption, improvements in near term readiness and in combat sustainability, and the acquisition of war reserve stocks for use during wartime.

JUSTIFICATION OF FUNDS REQUESTED

The fiscal year 1985 program provides for worldwide training consumption and losses to inventory through the FY 1985 funded delivery period; increases US Army readiness in support of the FY 1987 authorized acquisition objective and maintains an active ammunition production base in FY 1985 for modernization and training type munitions. The FY 1985 program includes over 50 different types of ammunition with the following category breakout: \$417.9 million for tank ammunition, \$128.5 million for fuzes, \$900.6 million for artillery ammunition, \$181.8 million for propelling charges, \$469.4 million for small arms ammunition, \$182.6 million for mortar ammunition; \$81.1 million for nuclear projectile and materiel; \$141.3 million for rockets and \$337.4 million for other ammunition, spares and components for tests, renovation and proveout. Of the \$2,840.6 million total for ammunition hardware, \$1,628.8 million is allocated to tank gun and artillery munitions and their related fuzes and propelling charges.

4-22 January 1983

Department of the Army Annual Budget Estimates	Appropriation			FY 1984
JUSTIFICATION	Procurement of Ammunition, Army			Budget
Program or Budget Project Account	(Thousands of Dollars)			
	Actual	Estimate	Estimate	Estimate
	FY 1982	FY 1983	FY 1984	FY 1985
Direct Obligation or Direct Budget Plan	\$301,720	\$404,494	\$277,339	\$563,600

PURPOSE AND SCOPE

AMMUNITION PRODUCTION BASE SUPPORT. The FY 1984 program provides for the support of plants in active production and the modernization and expansion of production capability for ammunition, layaway of industrial plants and equipment, and the manufacturing technology to facilitate and improve the production of ammunition.

JUSTIFICATION OF FUNDS REQUESTED

Provision of Industrial Facilities (P-1 Line Item No. 57)

(\$ Thousands)

FY 1984	FY 1985
235,639	491,800

The major effort for the ammunition provision of industrial facilities program in FY 1984 is the modernization and expansion program. The FY 1984 modernization and expansion program of \$205.1 million (including construction) is the sixteenth year of a long range, multi-billion dollar capital investment program which seeks to modernize existing World War II facilities which are deteriorated, obsolete, and inefficient, and to expand the base, where required, to provide the production capability to produce new, modernized ammunition items. The principal thrust of the program in FY 1984 is the establishment of production base capability to produce new and more effective modernized ammunition items. New production capability is established or expanded for Combined Effect Munitions (CEM); members of the Family of Scatterable Mines (FASCAM); 105/120mm tank ammunition, 155mm artillery ammunition, 25mm GAU-12 ammunition, and BIGEYE chemical bomb munitions.

In the FY 1984 program, a total of \$14.0 million is requested for facilities to produce metal parts for the combined effects munitions. Also in the area of new initiatives are three projects totalling \$90.3 million to provide facilities for chemical binary munitions. Two facilities are included in support of the Navy BIGEYE bomb for fill, load, assemble and pack at Pine Bluff Arsenal and a commercial facility for the manufacture of QL (chemical component in binary munition). A third facility for manufacture of the chemical Dichloro at a commercial facility is in support of the 155mm binary chemical projectile. In addition,

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a \$12.1 million project at a commercial facility expands the 25mm GAU-12 capability requirement to support Navy programs. A 105/120mm tank ammunition project in the amount of \$14.3 million provides facilities for the manufacture of kinetic energy metal parts and their assembly. The family of scatterable mines (FASCAM) project in the amount of \$11.9 million provides for expanded capability to load, assemble and pack the GATOR and modular pack mine system (MOPMS) mines.

Other major efforts are: an \$8.7 million project at Sunflower Army Ammunition Plant (AAP) to prove out the nitroguanidine main plant, an \$8.9 million project to provide equipment to produce a threaded base for the M509A1 projectile at commercial facilities, \$1.8 million for equipment modernization of nitric acid support facilities at Holston AAP for explosives production, \$3.2 million for equipment to manufacture stick propellant for artillery ammunition at Radford AAP, \$1.6 million for automated assembly equipment for 60/81mm increment containers at a commercial facility and a \$31.1 million design effort for out year projects.

Also included in the FY 1984 request are funds for the necessary production support and equipment replacement for plants in active production in the amount of \$30.4 million. It is expected that thirteen ammunition plants will require production support and equipment replacement funds in FY 1984.

Fast payback capital tools and equipment purchased under the Productivity Capital Investment Programs resulted in avoidance savings of \$400,000, which demonstrate the savings due to this economies, efficiencies and management improvement action.

A detailed breakout of the projects with construction begins on page 4-26 . Included in this year's ammunition procurement request is \$10.2 million for construction which will require authorization in the FY 1984 Military Construction Authorization Bill.

The major effort for the ammunition provision of industrial facilities program in FY 1985 is the modernization and expansion program. The FY 1985 modernization and expansion program of \$457.7 million (including construction) is the seventeenth year of a long range, multi-billion dollar capital investment program which seeks to modernize existing World War II facilities which are deteriorated, obsolete, and inefficient, and to expand the base, where required, to provide the production capability to produce new modernized ammunition items. The principal thrust of the program in FY 1985 is the establishment of production base capability to produce the new and more effective modernized ammunition items. Production capability is being established or expanded for 105/120mm tank ammunition in the amount of \$132.7 million, 81mm XM819 red phosphorous mortar ammunition in the amount of \$1.9 million, 5.56mm squad assault weapon system (SAWS) ammunition in the amount of \$10.4 million, RDX/HMX facility design in the amount of \$12.8 million and 16 inch ammunition for Navy in the amount of \$15.7 million. These projects are needed to permit

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the introduction of these modernized ammunition items into the inventory with the resultant increase in the readiness and effectiveness of our combat forces. A detailed breakout of individual projects is provided in Section 4.

Other major efforts are \$39.3 million to modernize nitroglycerin Area 2 damaged by explosions at Radford Army Ammunition Plant (AAP), \$7.5 million for Xray inspection equipment at Iowa AAP for the 155mm rocket assisted projectile and \$38.3 million for design effort for out year projects.

Also included in the FY 1985 request are funds for the necessary production support and equipment replacement for plants in active production in the amount of \$34.1 million.

It is estimated that approximately \$66.9 million of construction will require authorization in the FY 1985 Military Construction Authorization Bill.

Layaway of Industrial Facilities (P-1 Line Item No. 58)

(\$ in Thousands)

<u>FY 1984</u>	<u>FY 1985</u>
17,300	20,200

The \$17.3 million requested for layaway is for the protection and preservation of equipment and facilities no longer required for active production but which must be retained for future peacetime or mobilization production.

Manufacturing Technology Program (P-1 Line Item No. 59)

(\$ in Thousands)

<u>FY 1984</u>	<u>FY 1985</u>
24,400	51,600

The funds for Manufacturing Methods and Technology (MM&T) is associated with the modernization and expansion program. This program improves on-going production processes to achieve cost reductions and enhanced health, safety, and energy conservation characteristics. Additionally, this program develops production processes incorporating the latest state-of-art technology from private industry to mass produce the new and more sophisticated munitions.

4-25 January 1983

Department of the Army

FY 1984

Annual Budget Estimate

JUSTIFICATION

Budget

Appropriation	Budget Program or Budget Project Account
Procurement of Ammunition, Army	Activity 2 - Production Base Support

Authorization of construction required to support ammunition production base projects in the FY 1984 program is valued at \$10.2 million. Starting in FY 1977, the military construction effort is authorized in the Military Construction Authorization Bill and appropriated in the Procurement of Ammunition, Army appropriation. The Congress authorized construction in the amount of \$49.0 million in FY 1982 and \$25.1 million in FY 1983 for this program. Military Construction Project DATA (DD Form 1391), which provide detailed project information, is published under separate cover. A listing of FY 1984 construction projects is as follows:

Army Ammunition Plants (AAP)	Project No.	Project Title	PIF* Const Cost Estimate (Millions) PS&ER**	MOD/EXP***	PIF Equip Cost (Millions)	Total Project Cost (Millions)
Iowa AAP	5845333-14	Barricades	2.0			2.0
Lake City AAP	5845332-20	Fire Alarm System	.4			.4
	5845332-24	Fuel Oil Tank Replacement	.2			.2
Lone Star AAP	5842041	Family of Scatterable Mines		1.3	9.8	11.1
Longhorn AAP	5845327-15	Shield Test Facility	.3			.3
Milan AAP	5845317-14	On Line Storage Facility	.3			.3
Radford AAP	5840084	155mm Stick Propellant		2.1	1.1	3.2
	5845326-14	Fuel Storage Facilities	.9			.9
	5845326-15	Barricades	1.7			1.7
Scranton AAP	5845342-10	Lighting Upgrade	.7			.7
	5845342-13	Compressed Air Dryers	.3			.3
	TOTAL		6.8	3.4	10.9	21.1
	GRAND TOTAL					
	(Construction)	\$10.2 Million				

*Provision of Industrial Facilities

**Production Support & Equipment Replacement

***Modernization/Expansion

4-26 January 1983

Department of the Army

FY1984

Annual Budget Estimate

JUSTIFICATION

Budget

Appropriation

Budget Program or Budget Project Account

Procurement of Ammunition, Army

Activity 2 - Production Base Support

	FY 82 (Millions)	FY 83 (Millions)	FY 84 (Millions)	FY 85 (Millions)
<u>Provision of Industrial Facilities (PIF)</u>	236.8	387.3	235.6	491.8
Production Support and Equipment				
Replacement (PS&ER)	(41.1)	(33.6)	(30.4)	(34.1)
Productivity Investments			(.1)	
Initial Production Facilities (IPF)	(97.8)	(166.3)	(104.3)	(74.5)
Modernization (MOD)	(54.5)	(72.2)	(10.7)	(152.7)
Expansion (EXP)	(43.4)	(115.2)	(90.1)	(230.5)
<u>Layaway of Industrial Facilities</u>	24.7	17.2	17.3	20.2
<u>Manufacturing Technology Program</u>	29.9	-	24.4	51.6
<u>Depot Maintenance Plant Equipment</u>	10.3			
TOTAL PBS AMMUNITION	301.7	404.5	277.3	563.6

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PROCUREMENT OF AMMUNITION, ARMY

Section 3

Comparison of Program Requirements and Financing

Comparison of FY 1983 program requirements as reflected in FY 1983 budget with FY 1983 program requirements as shown in FY 1984 budget.

Comparison of FY 1983 financing as reflected in FY 1983 budget with FY 1983 financing as shown in FY 1984 budget.

Comparison of FY 1982 program requirements as reflected in FY 1983 budget with FY 1982 program requirements as shown in FY 1984 budget.

Comparison of FY 1982 financing as reflected in FY 1983 Budget with FY 1982 financing as shown in FY 1984 budget.

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COMPARISON OF FY 1983 PROGRAM REQUIREMENTS
AS REFLECTED IN FY 1983 BUDGET WITH
FY 1983 PROGRAM REQUIREMENTS AS SHOWN IN FY 1984 BUDGET

SUMMARY OF REQUIREMENTS (In Thousands of Dollars)			
Appropriation:	Program Requirements In FY 1983 Budget	Program Requirements In FY 1984 Budget	Increase (+) or Decrease (-)
Procurement of Ammunition, Army			
Activity 1 - Ammunition	2,205,600	1,717,500	-488,100
Activity 2 - Ammunition Production	433,384	404,494	- 28,890
Base Support	2,638,984	2,121,994	-516,990

EXPLANATION BY ACTIVITY

Activity 1 - Ammunition. The \$488,100 thousand decrease is the net result of the FY 1983 Budget Amendment (-\$7,700 thousand), congressional action in the FY 1983 Appropriation, P.L. 97-377 (-\$460,400 thousand) and a decrease of \$20,000 thousand proposed for reprogramming to Budget Activity 2.

Activity 2 - Ammunition Production Base Support. The \$28,890 thousand decrease is the net result of congressional action in the FY 1983 Appropriation (-\$49,890 thousand), a proposed reprogramming increase of \$20,000 thousand offset by resources from Activity 1 and a proposed reprogramming increase of \$1,000 thousand for a compartmented project.

4-29 January 1983

COMPARISON OF FY 1983 FINANCING AS REFLECTED
IN THE FY 1983 BUDGET WITH FY 1983 FINANCING
AS SHOWN IN FY 1984 BUDGET

(In Thousands of Dollars)

Appropriation:	Financing In FY 1983 Budget	Financing In FY 1984 Budget	Increase (+) or Decrease (-)
Procurement of Ammunition, Army			
Program Requirements, (Total)	2,778,084	2,241,494	-536,590
Program Requirements (Service Account)	(2,638,984)	(2,121,994)	(-516,990)
Program Requirements (Reimbursable)	(139,100)	(119,500)	(- 19,600)
Less:			
Anticipated Reimbursements	144,700	125,100	- 19,600
Reprogramming from prior year budget plans	-0-	-0-	-0-
Unobligated balance available from prior year to finance new budget plans	-0-	-0-	-0-
Unobligated balance transferred from other accounts	-0-	-0-	-0-
Add: Unobligated balance transferred to other accounts	-0-	-0-	-0-
Unobligated balance available to finance subsequent year budget plans	-0-	-0-	-0-
BUDGET AUTHORITY	2,633,384	2,116,394	-516,990
BUDGET AUTHORITY			
Appropriation	2,633,384	2,122,394	-516,990
Reduction (Sec 790, P.L. 97-377)		- 7,000	- 7,000
Transferred from other accounts		1,000	+ 1,000
Appropriation (Adjusted)	2,633,384	2,116,394	-516,990

EXPLANATION OF CHANGES IN FINANCING

The total program for fiscal year 1983 has decreased by \$536,590 thousand since the FY 1983 budget request was presented to the Congress. This decrease is attributed to the following:

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Anticipated reimbursements: Estimates of sales of ammunition to customers, including foreign countries, are reduced by \$19,600 thousand to reflect current program execution plans. The anticipated reimbursements include \$5,600 thousand, to be generated by non-FMS sales of items from stock which do not require replacement, which will be available to finance direct Army programs.

Budget Authority: The decrease of \$516,990 is the result of the Budget Amendment, congressional action in the FY 1983 Appropriation (P.L. 97-377) and reprogramings previously described in the FY 1983 program comparison. The adjusted appropriation figure also reflects these changes.

4-31 January 1983

**COMPARISON OF FY 1982 PROGRAM REQUIREMENTS
AS REFLECTED IN FY 1983 BUDGET WITH
FY 1982 PROGRAM REQUIREMENTS AS SHOWN IN FY 1984 BUDGET**

SUMMARY OF REQUIREMENTS (In Thousands of Dollars)			
Appropriation:	Total Program Requirements In FY 1983 Budget	Program Requirements In FY 1984 Budget	Increase (+) or Decrease (-)
Procurement of Ammunition, Army			
Activity 1 - Ammunition	1,990,600	2,020,895	+30,295
Activity 2 - Ammunition Production	311,900	301,720	-10,180
Base Support	2,302,500	2,322,615	+20,115

Explanation by Activity

Activity 1 - Ammunition. The \$30,295 thousand increase is the net result of reprogramming of resources from Activity 2 (+\$8,780 thousand), application of receipts from non-FMS sales of items which do not require replacement in Army inventories (+\$115 thousand) and congressional action on various FY 1982 reprogramming requests proposing transfers to other Army accounts (+\$21,400 thousand).

Activity 2 - Ammunition Production Base Support. The \$10,180 thousand decrease is the net result of congressional action in the FY 1982 Supplemental Appropriation, P.L. 97-257 (-\$1,500 thousand), denial of reprogramming action FY 82-31 (+\$100 thousand) and reprogramming to Activity 1 (-\$8,780 thousand).

4-32 January 1983

**COMPARISON OF FY 1982 FINANCING AS REFLECTED
IN THE FY 1983 BUDGET WITH FY 1982 FINANCING
AS SHOWN IN FY 1984 BUDGET**

(In Thousands of Dollars)

Appropriation:	Financing In FY 1983 Budget	Financing In FY 1984 Budget	Increase (+) or Decrease (-)
Procurement of Ammunition, Army			
Program Requirements, (Total)	2,361,200	2,406,611	+45,411
Program Requirements (Service Account)	(2,302,500)	(2,322,615)	(+20,115)
Program Requirements (Reimbursable)	(58,700)	(83,996)	(+25,296)
Less:			
Anticipated Reimbursements	63,300	84,111	(+20,811)
Reprogramming from prior year budget plans	-0-	-0-	-0-
Unobligated balance available from prior year to finance new budget plans	-0-	-0-	-0-
Unobligated balance transferred from other accounts	84,000	-0-	+84,000
Add: Unobligated balance transferred to other accounts	84,000	-0-	-84,000
Unobligated balance available to finance subsequent year budget plans	-0-	10,000	+10,000
BUDGET AUTHORITY	2,297,900	2,322,500	+34,600
BUDGET AUTHORITY			
Appropriation	2,381,900	2,381,900	-0-
Transferred to other accounts	-84,000	-49,400	+34,600
Appropriation (Adjusted)	2,297,900	2,332,500	+34,600

4-33 January 1983

EXPLANATION OF CHANGES IN FINANCING

The total fiscal year 1982 program has increased by \$45,411 thousand since the FY 1983 budget request was presented to the Congress. This increase is due to the following:

Anticipated Reimbursements: The \$20,811 thousand increase reflects actual sales of munitions to foreign countries and other non-U.S. Army customers. The anticipated reimbursements include \$115 thousand, which was generated by non-FMS sales of items from stock which do not require replacement and is available to finance direct Army programs.

Unobligated balance transferred from/to other accounts: The transactions shown in the FY 1983 budget are reversed due to congressional denial of a reprogramming transfer of funds to other accounts.

Unobligated balance available to finance subsequent year budget plans: The \$10,000 thousand increase represents funds which were transferred to RDT&E, Army (Reprogramming Action No. FY 82-51 PA) during FY 1983 which are no longer available to the Procurement Ammunition, Army.

Budget Authority: The increase of \$34,600 is the net result of changes described above. The total shown, as well as the adjusted appropriation figure, include \$10,000 which is no longer available.

4-34 January 1983

PROCUREMENT OF AMMUNITION, ARMY

Section 4

Selected Data Sheets

4-35 January 1983

PROCUREMENT OF AMMUNITION, ARMY
PRODUCTION BASE SUPPORT
(\$ in Millions)

Service: Army

P-1 Line Item: Provision of Industrial Facilities

Projects:

	<u>FY82</u>	<u>FY83</u>	<u>FY84</u>	<u>FY85</u>
<u>Annual Support</u>				
5820252 - Pine Bluff Arsenal: Support (Spt): Production Support & Equipment Replacement (PS&R)	1.8			
5824806 - Armament Research and Development Command: Spt - PS&R	1.3			
5845060 - Jefferson Proving Ground: Spt - PS&R	2.2	1.5	1.0	2.0
5825201 - Inactive Plants: Spt - Energy Conservation and Management	1.1			
5845314 - Louisiana Army Ammunition Plant (AAP): Spt - PS&R		1.1	1.3	2.0
5845316 - Lone Star AAP: Spt - PS&R	1.8	1.8	2.8	2.9
5845317 - Milan AAP: Spt - PS&R	2.5	1.3	2.5	2.8
5845326 - Radford AAP: Spt - PS&R	6.7	5.1	5.6	5.9
5845327 - Longhorn AAP: Spt - PS&R	1.4	3.7	2.2	2.6
5845328 - Holston AAP: Spt - PS&R	3.9	1.5	3.0	1.8
5845329 - Kansas AAP: Spt - PS&R	3.1	2.4	2.7	2.7
5845330 - Indiana AAP: Spt - PS&R	5.1	3.3		2.1
5845332 - Lake City AAP: Spt - PS&R	2.6	3.2	2.4	2.5
5845333 - Iowa AAP: Spt - PS&R	2.9	3.9	3.1	2.9
5845342 - Scranton AAP: Spt - PS&R	1.9	3.7	2.6	2.9
5845662 - All Plants: Omnibus Project for Purchase of Self-Amortizing Equipment		1.0	1.0	1.0
Projects under \$900,000 each	<u>2.8</u>	<u>.1</u>	<u>.2</u>	<u> </u>
Subtotal Production Support & Equipment Replacement	41.1	33.6	30.4	34.1

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PROCUREMENT OF AMMUNITION, ARMY
PRODUCTION BASE SUPPORT
(\$ in Millions)

	<u>FY82</u>	<u>FY83</u>	<u>FY84</u>	<u>FY85</u>
<u>Productivity Investments</u>				
Projects under \$900,000 each			.1	
Subtotal Productivity Investments			<u>.1</u>	
<u>Projects</u>				
<u>Initial Production Facilities (IPF)</u>				
5820019 - Commercial: IPF - 40mm DIVAD Ammunition	47.5			
5820048 - Kansas Army Ammunition Plant (AAP): IPF - Combined Effects Munitions	19.7			
5820050 - Commercial: IPF - Tactical Munitions Dispenser	6.2			
5820072 - Crane AAA: IPF - 5-inch Hi-Frag Beaker Loading	2.3			
5822266 - Lake City AAP: IPF - Squad Assault Weapon Systems (SAWS) Ammunition	1.9			
5822326 - Commercial: IPF - Acquisition of Viper Equipment - Phase II	11.0			
5822366 - Louisiana AAP: IPF - M825/687 Projectile Metal Parts	2.0			
5823065 - Commercial: IPF - 40mm M430 High Explosive Dual Purpose Ammunition	5.4			
5830020 - Commercial: IPF - FASCAM Metal Parts		17.6		
5830025 - Commercial: IPF - 105/120mm XM833/XM829 Kinetic Energy Penetrators		18.5		
5830026 - Iowa AAP: IPF - 120mm Projectile Load Assemble & Pack (LAP)		10.7		
5830027 - Commercial: IPF - 120mm Combustible Cartridge Case		5.3		
5830037 - Pine Bluff Arsenal: IPF - L8A1 Red Phosphorous Grenade LAP		2.4		
5830039 - Commercial: IPF - 105/120mm High Explosive Anti-Tank Projectile Metal Parts		22.9		

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PRODUCTION BASE SUPPORT
(\$ in Millions)

Projects

Initial Production Facilities (IPF), Continued

	<u>FY82</u>	<u>FY83</u>	<u>FY84</u>	<u>FY85</u>
5830061 - Commercial: IPF - 120mm Stub Base		21.6		
5830074 - Commercial: IPF - Bigeye Bomb Metal Parts		12.8		
5830094 - Commercial: IPF - FMU-139/B Electronic Bomb Fuze		5.8		
5832200 - Radford AAP: IPF - 2.75-inch MK66 Rocket Grains		1.9		
5832206 - Commercial: IPF - 105/120mm Kinetic Energy Metal Parts		41.1		
5832229 - Radford AAP: IPF - 120mm Propellant		1.6		
5834871 - Iowa AAP: IPF - FASCAM LAP Load Assemble & Pack (GATOR)		3.6		
5840051 - Commercial: IPF - Combined Effects Munitions Metal Parts			14.0	
5840063 - Pine Bluff Arsenal: IPF - Bigeye Bomb Load Assemble & Pack (LAP)			30.6	
5840079 - Commercial: IPF - QL Production Facility for Bigeye Bomb			34.5	
5840103 - Commercial: IPF - DC Production Facility for 155mm M687 Projectile			25.2	
5850064 - Pine Bluff Arsenal: IPF - XM819 Red Phosphorous Mortar Load Assemble & Pack (LAP)				1.0
5850077 - Commercial: IPF - Fuze - Solid Carbide Hob Facility				1.0
5850085 - Commercial: IPF - 105mm XM815 Metal Parts				56.1
5850099 - X-Facility: IPF - 105mm XM815 Load Assemble & Pack (LAP)				15.5
5850202 - Pine Bluff Arsenal: IPF - Red Phosphorous Smoke Mix Blending Facility				.9
Projects under \$900,000 each	<u>1.8</u>	<u>.5</u>		
Subtotal, Initial Production Facilities (IPF)	97.8	166.3	104.3	74.5

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PROCUREMENT OF AMMUNITION, ARMY
PRODUCTION BASE SUPPORT
(\$ in Millions)

Projects

MODERNIZATION (MOD)

	<u>FY82</u>	<u>FY83</u>	<u>FY84</u>	<u>FY85</u>
5820285 - Pine Bluff Arsenal: MOD - Grenade Hexachloroethane (HC) Smoke M8 LAP	1.5			
5822052 - Holston Army Ammunition Plant (AAP): MOD - Comp B Line 1 Improvements	7.5			
5822138 - Kansas AAP: MOD - M42/M46 Grenade In-Process Storage Igloos	.9			
5822146 - Lake City AAP: MOD - Small Caliber Ammunition Modernization Program (SCAMP) Line 1 Spare Parts	1.2			
5822317 - Radford AAP: MOD - Ammonia Oxidation Plant Modifications	5.3			
5822353 - Louisiana AAP: MOD - 155mm Projectile Metal Parts Rate/Technical Data Package Deficiencies	2.7			
5822365 - Lake City AAP: MOD - Cartridge Case Measurement and Eject System	2.3			
5822380 - Sunflower AAP: MOD - Restore 300 Ton Per Day Ammonia Oxidation Plant-Phase I	1.1			
5823089 - Commercial: MOD - 5-inch/54 Projectile Manufacturing Facility	10.3			
5823106 - Lone Star AAP: MOD - Container Distribution Facility	2.0			
5823186 - Commercial: MOD - Active Munitions Metal Parts Facilities - Phase I	3.3			
5823225 - Commercial: MOD - 30mm Production Equipment	1.7			
5823593 - Iowa AAP: MOD Rehabilitate Main Heating Plant	12.8			
5832066 - Indiana AAP: MOD - Power Tie Line		4.0		
5832109 - Milan AAP: MOD - Rehabilitation of K-10 Boiler Facility		5.8		

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(\$ in Millions)

Projects

Modernization (MOD), Continued

	<u>FY82</u>	<u>FY83</u>	<u>FY84</u>	<u>FY85</u>
5832127 - Volunteer Army Ammunition Plant (AAP): MOD - Modifications to Continuous TNT Area		4.7		
5832201 - Lake City AAP: MOD - SCAMP Line 3 Completion		4.4		
5832202 - Lake City AAP: MOD - SCAMP Lines 4, 5 Completion		13.3		
5832250 - Multiple Sites: MOD - Pyrotechnic Temperature and Humidity Controls		3.7		
5832260 - Multiple Sites: MOD - Pyrotechnic Safety Enhancement		2.1		
5832380 - Sunflower AAP: MOD - Restore 300 Ton Per Day Ammonia Oxidation Plant		4.2		
5833107 - Louisiana AAP: MOD - Container Distribution Facility		3.3		
5833176 - Commercial: MOD - Fuze Production Equipment		3.3		
5833178 - Commercial: MOD - Fuze Production Equipment Modernization		2.2		
5833190 - Commercial: MOD - Improved Metal Parts Productivity		10.7		6.8
5833605 - Kansas AAP: MOD - Consolidated Plant Operations Center		7.4		
5843215 - Commercial: MOD - 8-inch M509 Threaded Base			8.9	
5843906 - Holston AAP: MOD - Nitric Acid Support for explosives Production		3.1	1.8	
5852145 - Lone Star AAP: MOD - 60/81mm Mortar Test and Assembly Equipment				1.1
5852151 - Milan AAP: MOD - M42/M46 Tape Stiffener Assembly				3.6
5852158 - Indiana AAP: MOD - Central Laboratory Renovation				2.3
5852159 - Indiana AAP: MOD - Propelling Charge Qualifica- tion Building				2.3

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PRODUCTION BASE SUPPORT
(\$ in Millions)

Projects

Modernization (MOD), Continued

	<u>FY82</u>	<u>FY83</u>	<u>FY84</u>	<u>FY85</u>
5852196 - Pine Bluff Arsenal: MOD - Material Handling Equipment for Bulk Chemicals				2.1
5852198 - Joliet Army Ammunition Plant (AAP): MOD - Occupational Safety & Health Act (OSHA) Corrections and Upgrade of TNT Lines				4.7
5852199 - Holston AAP: MOD - Coal Handling Equipment				3.2
5852208 - Lake City AAP: MOD - Squad Assault Weapon System (SAWS) Conversion of Small Caliber Ammunition Modernization Program (SCAMP) Equipment				6.7
5852222 - Iowa AAP: MOD - 155mm M549 Projectile Inspection Equipment				7.5
5852225 - Radford AAP: MOD - Overhaul of Power Generation and Distribution System				10.6
5852232 - Lake City AAP: MOD - 5.56mm Blank Production on SCAMP				3.4
5852240 - Multiple Sites: MOD - Pyrotechnic Safety, Preignition Detector/Vapor Sensor				3.2
5852290 - Radford AAP: MOD - Modernize Continuous Nitroglycerin Area 2				39.3
5852293 - Radford AAP: MOD - TNT Area Operational Support Facility				2.8
5852299 - Radford AAP: MOD - Restoration of Nitrocellulose Dehydration Facility				3.8
5852301 - Iowa AAP: MOD - M55 Detonator Loader Replacement				1.2
5852355 - Mississippi AAP: MOD - Patrol Roads for Mississippi Army Ammunition Plant (AAP)				.9
5852359 - Scranton AAP: MOD - Water Distribution Replacement System				2.2
5852507 - Louisiana AAP: MOD - Support Chemical Laboratory				1.1
5852677 - Iowa AAP: MOD - 155mm/8 in M549/M650 Load Assemble & Pack (LAP)				11.1
5853230 - X - Facility: MOD - 16-inch Projectile Metal Parts/LAP				15.7

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PRODUCTION BASE SUPPORT
(\$ in Millions)

Projects

Modernization (MOD), Continued

	<u>FY82</u>	<u>FY83</u>	<u>FY84</u>	<u>FY85</u>
5853233 - Commercial: MOD - M509A2E1/XM764 Fuze Production Equipment				3.8
5853551 - X-Facility: MOD - M223 Fuze Hi-Speed Assembly Line				13.3
Projects under \$900,000 each	<u>1.9</u>	<u> </u>	<u> </u>	<u> </u>
Subtotal Modernization	54.5	72.2	10.7	152.7

Expansion (EXP)

5823142 - Mississippi Army Ammunition Plant (AAP): EXP - Sixth Phase of Construction of 155mm Complex	19.5	17.7		
5823239 - Commercial: EXP - Metal Parts for MK83 1000 lb Bomb	2.8			
5830050 - Commercial: EXP - Tactical Munitions Dispenser Metal Parts		1.8		
5832632 - Sunflower AAP: EXP - Nitroguanidine Support		9.3		
5833197 - Commercial: EXP - M734 Fuze Hybrid Amplifier		4.8		
5840084 - Radford AAP: EXP - 155mm Stick Propellant			3.2	
5842041 - Lone Star AAP: EXP - Family of Scatterable Mines (Gator/Modular Pack Mine System) Load Assemble and Pack			11.9	
5842207 - Commercial: EXP - 105/120mm Kinetic Energy Metal Parts			14.3	12.6
5842632 - Sunflower AAP: EXP - Nitroguanidine Prove-Out			8.7	
5842855 - X - Facility: EXP - 25mm GAU - 12/U Ammunition			12.1	
5843194 - X - Facility: EXP - 60/81mm Mortar Increment Containers			1.6	
XXXXXXX - X - Facility: EXP - Classified Program		43.9	7.2	65.5
5850074 - Commercial: EXP - Bigeye Bomb Metal Parts				10.0
5850086 - Lake City AAP: EXP - 5.56mm Tracer Charging Equipment				10.4

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(\$ in Millions)

Projects

Expansion (EXP), Continued

	<u>FY82</u>	<u>FY83</u>	<u>FY84</u>	<u>FY85</u>
5852343 - Iowa Army Ammunition Plant (AAP): EXP - Family of Scatterable Mines Presses and Igloos				7.4
5852386 - Kansas AAP: EXP - Combined Effects Munitions Load Assemble & Pack				4.6
5852528 - X - Facility: EXP - RDX/HMX Explosive Facility Design				12.8
5853165 - Commercial: EXP - 105/120mm High Explosive Anti-Tank Projectile Metal Parts				15.8
5853192 - Commercial: EXP - 120mm Stub Base				23.6
5853199 - Commercial: EXP - Remote Anti-Armor Mine Metal Parts				4.0
5853212 - Commercial: EXP - 120mm Combust. Cartridge Case				9.1
5853247 - Commercial: EXP - Fuze FMU-139/B				11.3
5853549 - X - Facility: EXP - M223 Fuze Metal Parts				5.1
Omnibus Engineering Design	20.5	34.6	31.1	38.3
Projects Under \$900,000 Each	<u>.6</u>	<u>3.1</u>	<u>-</u>	<u>-</u>
Subtotal Expansion	<u>43.4</u>	<u>115.2</u>	<u>90.1</u>	<u>230.5</u>
Subtotal Provision of Industrial Facilities	236.8	387.3	235.6	491.8

P-1 Line Item: Layaway of Industrial Facilities

Projects

5848450 - Armament Materiel Readiness Command (ARRCOM): Layaway and/or Redistribution of Government-Owned Equipment in Government-Owned Plants	20.5	11.5	12.0	14.7
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PROCUREMENT OF AMMUNITION, ARMY
PRODUCTION BASE SUPPORT
(\$ in Millions)

<u>Projects</u>	<u>FY82</u>	<u>FY83</u>	<u>FY84</u>	<u>FY85</u>
5849589 - ARRCOM: Layaway and/or Redistribution of Government-Owned Equipment	4.2	5.7	5.3	5.5
Subtotal Layaway of Industrial Facilities	24.7	17.2	17.3	20.2
<u>Manufacturing Technology</u>				
5851801 - Manufacturing Methods and Technology (MMT): Automated Assembly for M734 fuze				2.0
5841802 - MMT: Automated Microelectronics Inspection			1.0	
5824061 - MMT: Nitroguanidine Process Optimization	1.2			
5824062 - MMT: Automated Manufacturing Mortar Increment Containers	3.2			
5844078 - MMT: Improve Existing Melt Pour Lines			.9	
5854281 - MMT: Conservation of Energy at Ammunition Plants	1.4			2.2
5824309 - MMT: 120mm Tank Ammunition	4.0			
5824454 - MMT: Automated Inspection of Explosive Cast in Shell	1.5			
5824489 - MMT: Pollution Abatement Technology	1.4			
5844531 - MMT: Prototype Production of Stick Propellant on Continuous Automated Multi-Base Line			1.0	.9
5844534 - MMT: SAWS Bullet conversion of SCAMP Equipment			1.8	
5854554 - MMT: Combustible Component Pilot Plant				1.2
5824557 - MMT: Artillery Ballistic Acceptance Test (ARBAT)	2.5			
5844563 - MMT: Process Improvement for Depleted Uranium Penetrators			3.1	1.5
5844564 - MMT: Environmental Control Techniques at Ammunition Plants				1.1
5854572 - MMT: Improve Batch Process Multibased Propellants				1.0
5854573 - MMT: Combined Compound Mix & Extrusion of Single Base Propellant				1.2
5854576 - MMT: Screw Extrusion of Solventless Propellant				1.0
5854584 - MMT: Loading Equip for CAL .50 Ball & Blank Ammo				.9

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PRODUCTION BASE SUPPORT
(\$ in Millions)

	<u>FY82</u>	<u>FY83</u>	<u>FY84</u>	<u>FY85</u>
Projects Under \$900,000	<u>14.7</u>	—	<u>15.5</u>	<u>38.7</u>
Subtotal Manufacturing Technology	29.9	-0-	24.4	51.6
<u>P-1 Line Item: Depot Maintenance Plant Equipment</u>				
<u>Projects</u>				
Ammunition Peculiar Equipment in Support of Worldwide Depot	<u>10.3</u>	—	—	—
Subtotal Depot Maintenance Plant Equipment	10.3	-0-	-0-	-0-
Total Ammunition Production Base Support	<u>301.7</u>	<u>404.5</u>	<u>277.3</u>	<u>563.6</u>

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20. ABSTRACT (Continue on reverse side if necessary and identify by block number) In justification of programs requested, this document, in separate volume for each of the five Procurement Appropriations, provides backup data for the Army Budget submission for FY 1984. Included are Summaries of Requirements, Program and Financing Statements and Selected Data Sheets. (These volumes are unclas- sified).		

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